

CLAIMS

1 1. A method for establishing state information for a call between a calling party and
2 a called party, comprising:

3 receiving, at an originating gate controller, a setup request for a call, the originating gate
4 controller being connected to a first network, the calling party being associated with an
5 originating interface unit coupled to a second network that is different from said first network;

6 authorizing the setup request for the call;

7 sending the authorized setup request to the called party;

8 formatting state information for the call based on a setup acknowledgment message
9 received from the called party; and

10 sending the state information for the call from the originating gate controller to the
11 originating interface unit without maintaining the state information at the originating gate
12 controller,

13 said originating gate controller and said originating interface unit communicating with
14 one another via an access network.

1 2. The method of claim 1, further comprising:

2 encrypting, at the originating gate controller, the state information for the call before
3 sending the state information from the originating gate controller to the originating interface unit,
4 the state information being sent to the originating interface unit being in encrypted form.

1 3. The method of claim 1, further comprising:

2 performing, at the originating gate controller, a cryptographic hash function on the state
3 information to produce a hash-value; and

4 sending the hash value from the originating gate controller to the originating interface
5 unit.

1 4. The method of claim 1, further comprising: encrypting, at the originating gate
2 controller, the state information for the call before sending the state information from the

3 originating gate controller to the originating interface unit, the state information being sent to the
4 originating interface unit being in encrypted form;
5 performing, at the originating gate controller, a cryptographic hash function on the state
6 information to produce a hash-value; and
7 sending the hash value from the originating gate controller to the originating interface
8 unit.

1 5. A method for establishing state information for a call between a calling party and
2 a called party, comprising:

3 receiving, at an originating gate controller, a setup request for a call, the originating gate
4 controller being connected to a first network, the calling party being associated with an
5 originating interface unit coupled to a second network;

6 authorizing the setup request for the call;

7 sending the authorized setup request to the called party;

8 formatting state information for the call based on a setup acknowledgment message
9 received from the called party;

10 sending the state information for the call from the originating gate controller to the
11 originating interface unit without maintaining the state information at the originating gate
12 controller;

13 receiving a call feature request for the call at the originating gate controller;

14 receiving the state information at the originating gate controller from the originating
15 interface unit;

16 modifying the state information based on the call feature request; and

17 sending the modified state information for the call from the originating gate controller to
18 the originating interface unit without maintaining the modified state information at the
19 originating gate controller.

1 6. A computer-readable medium having stored thereon instructions for establishing
2 state information for a call between a calling party and a called party, the instructions when
3 executed by a processor cause the processor to:

4 receive, at an originating gate controller, a setup request for a call, the originating gate
5 controller being connected to a first network, the calling party being associated with an
6 originating interface unit coupled to a second network that is different from said first network;
7 authorize the setup request for the call;
8 send the authorized setup request to the called party;
9 format state information for the call based on a setup acknowledgment message received
10 from the called party; and
11 send the state information for the call from the originating gate controller to the
12 originating interface unit without maintaining the state information at the originating gate
13 controller,
14 said originating gate controller and said originating interface unit communicating with
15 one another via an access network.

1 7. The computer-readable medium of claim 6, having stored thereon instructions that
2 when executed by the processor further cause the processor to:
3 encrypt, at the originating gate controller, the state information for the call before sending
4 the state information from the originating gate controller to the originating interface unit,
5 the state information being sent to the originating interface unit being in encrypted form.

1 8. The computer-readable medium of claim 6, having stored thereon instructions that
2 when executed by the processor further cause the processor to:
3 perform, at the originating gate controller, a cryptographic hash function on the state
4 information to produce a hash value; and
5 send the hash value from the originating gate controller to the originating interface unit.

1 9. The computer-readable medium of claim 6, having stored thereon instructions that
2 when executed by the processor further cause the processor to:
3 encrypt, at the originating gate controller, the state information for the call before sending
4 the state information from the originating gate controller to the originating interface unit, the
5 state information being sent to the originating interface unit being in encrypted form;

6 perform, at the originating gate controller, a cryptographic hash function on the state
7 information to produce a hash value; and
8 send the hash value from the originating gate controller to the originating interface unit.

1 10. A computer-readable medium having stored thereon instructions for establishing
2 state information for a call between a calling party and a called party, the instructions when
3 executed by a processor cause the processor to:

4 receive, at an originating gate controller, a setup request for a call, the originating gate
5 controller being connected to a first network, the calling party being associated with an
6 originating interface unit coupled to a second network;

7 authorize the setup request for the call;

8 send the authorized setup request to the called party;

9 format state information for the call based on a setup acknowledgment message received
10 from the called party;

11 send the state information for the call from the originating gate controller to the
12 originating interface unit without maintaining the state information at the originating gate
13 controller;

14 receive a call feature request for the call at the originating gate controller;

15 receive the state information at the originating gate controller from the originating
16 interface unit;

17 modify the state information based on the call feature request; and

18 send the modified state information for the call from the originating gate controller to the
19 originating interface unit without maintaining the modified state information at the originating
20 gate controller.

1 11. A method for establishing state information for a call between a calling party and
2 a called party, comprising:

3 receiving, at a terminating gate controller, a setup request for a call, the terminating gate
4 controller being connected to a first network, the called party being associated with a terminating
5 interface unit coupled to a second network that is different from said first network, the setup
6 request being authorized for the call;

7 formatting state information for the call based on the setup request for the call; and
8 sending the state information for the call from the terminating gate controller to the
9 terminating interface unit without maintaining the state information at the terminating gate
10 controller;
11 said terminating gate controller and said terminating interface unit communicating with
12 one another via an access network.

1 12. The method of claim 11, further comprising:
2 encrypting, at the terminating gate controller, the state information for the call before
3 sending the state information from the terminating gate controller to the terminating interface
4 unit,
5 the state information being sent to the terminating interface unit being in encrypted form.

1 13. The method of claim 11, wherein:
2 performing, at the terminating gate controller, a cryptographic hash value on the state
3 information to produce a hash value; and
4 sending the hash value from the terminating gate controller to the terminating interface
5 unit.

1 14. The method of claim 11, further comprising:
2 encrypting, at the terminating gate controller, the state information for the call before
3 sending the state information from the terminating gate controller to the terminating interface
4 unit, the state information being sent to the terminating interface unit being in encrypted form;
5 performing, at the terminating gate controller, a cryptographic hash value on the state
6 information to produce a hash value; and
7 sending the hash value from the terminating gate controller to the terminating interface
8 unit.

1 15. A method for establishing state information for a call between a calling party and
2 a called party, comprising:

3 receiving, at a terminating gate controller, a setup request for a call, the terminating gate
4 controller being connected to a first network, the called party being associated with a terminating
5 interface unit coupled to a second network, the setup request being authorized for the call;

6 formatting state information for the call based on the setup request for the call;

7 sending the state information for the call from the terminating gate controller to the
8 terminating interface unit without maintaining the state information at the terminating gate
9 controller;

10
11 receiving a call feature request for the call at the terminating gate controller;

12 receiving the state information at the terminating gate controller from the terminating
13 interface unit;

14 modifying the state information based on the call feature request; and

15 sending the modified state information for the call from the terminating gate controller to
16 the terminating interface unit without maintaining the modified state information at the
17 terminating gate controller.

1 16. The method of claim 11, further comprising:

2 receiving a call return request for the call at the terminating gate controller;

3 receiving the state information at the terminating gate controller from the terminating
4 interface unit, the state information having a source address associated with the calling party;

5 modifying the state information based on the call return request; and

6 sending the modified state information for the call from the terminating gate controller to
7 the terminating interface unit without maintaining the modified state information at the
8 terminating gate controller.

1 17. The method of claim 11, further comprising:

2 receiving a called-party-originated trace request for the call at the terminating gate
3 controller;

4 receiving the state information at the terminating gate controller from the terminating
5 interface unit, the state information having a source address associated with the calling party;

6 modifying the state information based on the called-party-originated trace request; and

7 sending the modified state information for the call from the terminating gate controller to
8 the terminating interface unit without maintaining the modified state information at the
9 terminating gate controller.

1 18. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:

3 receive, at a terminating gate controller, a setup request for a call, the terminating gate
4 controller being connected to a first network, the called party being associated with a terminating
5 interface unit coupled to a second network that is different from said first network, the setup
6 request being authorized for the call;

7 format state information for the call based on the setup request for the call; and
8 send the state information for the call from the terminating gate controller to the
9 terminating interface unit without maintaining the state information at the terminating gate
10 controller,

11 said terminating gate controller and said terminating interface unit communicating with
12 one another via an access network.

1 19. The computer-readable medium of claim 18, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 encrypt, at the terminating gate controller, the state information for the call before
4 sending the state information from the terminating gate controller to the terminating interface
5 unit,

6 the state information being sent to the terminating interface unit being in encrypted form.

1 20. The computer-readable medium of claim 18, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 perform, at the terminating gate controller, a cryptographic hash function on the state
4 information to produce a hash value; and

5 send the hash value from the terminating gate controller to the terminating interface unit.

1 21. The computer-readable medium of claim 18, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 encrypt, at the terminating gate controller, the state information for the call before
4 sending the state information from the terminating gate controller to the terminating interface
5 unit, the state information being sent to the terminating interface unit being in encrypted form;

6 perform, at the terminating gate controller, a cryptographic hash function on the state
7 information to produce a hash value; and

8 send the hash value from the terminating gate controller to the terminating interface unit.

1 22. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:

3 receive, at a terminating gate controller, a setup request for a call, the terminating gate
4 controller being connected to a first network, the called party being associated with a terminating
5 interface unit coupled to a second network, the setup request being authorized for the call;

6 format state information for the call based on the setup request for the call;

7 send the state information for the call from the terminating gate controller to the
8 terminating interface unit without maintaining the state information at the terminating gate
9 controller;

10 receive a call feature request for the call at the terminating gate controller;

11 receive the state information at the terminating gate controller from the terminating
12 interface unit;

13 modify the state information based on the call feature request; and

14 send the modified state information for the call from the terminating gate controller to the
15 terminating interface unit without maintaining the modified state information at the terminating
16 gate controller.

1 23. The computer-readable medium of claim 18, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 receive a call return request for the call at the terminating gate controller;

4 receive the state information at the terminating gate controller from the terminating
5 interface unit, the state information having a source address associated with the calling party;
6 modify the state information based on the call return request; and
7 send the modified state information for the call from the terminating gate controller to the
8 terminating interface unit without maintaining the modified state information at the terminating
9 gate controller.

1 24. The computer-readable medium of claim 18, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 receive a called-party-originated trace request for the call at the terminating gate
4 controller;
5 receive the state information at the terminating gate controller from the terminating
6 interface unit, the state information having a source address associated with the calling party;
7 modify the state information based on the called-party-originated trace request; and
8 send the modified state information for the call from the terminating gate controller to the
9 terminating interface unit without maintaining the modified state information at the terminating
10 gate controller.

1 25. A method for performing call features to a call initiated between a calling party
2 and a called party, comprising:

3 sending the state information for the call from a gate controller to an associated interface
4 unit without maintaining the state information at the gate controller, the gate controller being
5 connected to a first network and the interface unit being coupled to a second network that is
6 different from said first network;

7 receiving a call feature request for the call at the gate controller after the state information
8 was sent from the gate controller to the associated interface unit;

9 receiving the state information at the gate controller from the associated interface unit
10 after the state information was sent from the gate controller to the associated interface unit;

11 modifying the state information based on the call feature request; and

12 sending the modified state information for the call from the gate controller to the
13 associated interface unit without maintaining the modified state information at the gate
14 controller,
15 said gate controller and said interface unit communicating with one another via an access
16 network.

1 26. The method of claim 25, further comprising:
2 encrypting, at the gate controller, the state information for the call before sending the
3 state information from the gate controller to the associated interface unit, the state information
4 being sent to the associated interface unit being in encrypted form; and
5 encrypting, at the gate controller, the modified state information for the call before
6 sending the modified state information from the gate controller to the associated interface unit,
7 the modified state information being sent to the associated interface unit being in encrypted
8 form.

1 27. The method of claim 25, further comprising:
2 performing, at the gate controller, a cryptographic hash function on the state information
3 to produce a first hash value;
4 sending the first hash value from the gate controller to the associated interface unit;
5 performing, at the gate controller, the cryptographic hash function on the modified state
6 information to produce a second hash value; and
7 sending the second hash value from the gate controller to the associated interface unit.

1 28. The method of claim 25, further comprising:
2 encrypting, at the gate controller, the state information for the call before sending the
3 state information from the gate controller to the associated interface unit, the state information
4 being sent to the associated interface unit being in encrypted form;
5 encrypting, at the gate controller, the modified state information for the call before
6 sending the modified state information from the gate controller to the associated interface unit,
7 the modified state information being sent to the interface unit being in encrypted form;

8 performing, at the gate controller, a cryptographic hash function on the state information
9 to produce a first hash value;
10 sending the first hash value from the gate controller to the associated interface unit;
11 performing, at the gate controller, the cryptographic hash function on the modified state
12 information to produce a second hash value; and
13 sending the second hash value from the gate controller to the associated interface unit.

1 29. The method of claim 25, wherein:

2 the gate controller is a terminating gate controller,
3 the interface unit is a terminating interface unit associated with the called party,
4 the call feature request is a call return request,
5 the state information has a source address associated with the calling party, and
6 a second call being connected based on the source address of the calling party.

1 30. The method of claim 25, wherein

2 the gate controller is a terminating gate controller,
3 the interface unit is a terminating interface unit associated with the called party,
4 the call feature request is a called-party-originated trace request,
5 the state information has a source address associated with the calling party, and
6 reporting the source address of the calling party to a service provider.

1 31. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:

3 send the state information for the call from a gate controller to an associated interface
4 unit without maintaining the state information at the gate controller, the gate controller being
5 connected to a first network, the interface unit being coupled to a second network;
6 receive a call feature request for the call at the gate controller after the state information
7 was sent from the gate controller to the associated interface unit;
8 receive the state information at the gate controller from the associated interface unit after
9 the state information was sent from the gate controller to the associated interface unit;
10 modify the state information based on the call feature request; and

11 send the modified state information for the call from the gate controller to the associated
12 interface unit without maintaining the modified state information at the gate controller.

1 32. The computer-readable medium of claim 31, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 encrypt, at the gate controller, the state information for the call before sending the state
4 information from the gate controller to the associated interface unit, the state information being
5 sent to the associated interface unit being in encrypted form; and

6 encrypt, at the gate controller, the modified state information for the call before sending
7 the modified state information from the gate controller to the associated interface unit, the
8 modified state information being sent to the associated interface unit being in encrypted form.

1 33. The computer-readable medium of claim 31, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 perform, at the gate controller, a cryptographic hash function on the state information to
4 produce a first hash value;

5 send the first hash value from the gate controller to the associated interface unit;

6 perform, at the gate controller, the cryptographic hash function on the modified state
7 information to produce a second hash value; and

8 send the second hash value from the gate controller to the associated interface unit.

1 34. The computer-readable medium of claim 31, having stored thereon instructions
2 that when executed by the processor further cause the processor to:

3 encrypt, at the gate controller, the state information for the call before sending the state
4 information from the gate controller to the associated interface unit, the state information being
5 sent to the associated interface unit being in encrypted form;

6 encrypt, at the gate controller, the modified state information for the call before sending
7 the modified state information from the gate controller to the associated interface unit, the
8 modified state information being sent to the interface unit being in encrypted form;

9 perform, at the gate controller, a cryptographic hash function on the state information to
10 produce a first hash value;

11 send the first hash value from the gate controller to the associated interface unit;
12 perform, at the gate controller, the cryptographic hash function on the modified state
13 information to produce a second hash value; and
14 send the second hash value from the gate controller to the associated interface unit.

1 35. The computer-readable medium of claim 31, having stored thereon instructions
2 that when executed by the processor further cause the processor to:
3 the gate controller is a terminating gate controller,
4 the interface unit is a terminating interface unit associated with the called party,
5 the call feature request is a call return request,
6 the state information has a source address associated with the calling party, and
7 a second call being connected based on the source address of the calling party.

1 36. The computer-readable medium of claim 31, having stored thereon instructions
2 that when executed by the processor further cause the processor to:
3 the gate controller is a terminating gate controller,
4 the interface unit is a terminating interface unit associated with the called party,
5 the call feature request is a called-party-originated trace request,
6 the state information has a source address associated with the calling party, and
7 reporting the source address of the calling party to a service provider.

1 37. A method for maintaining state information for a call between a calling party and
2 a called party, comprising:
3 sending a setup request for the call from an originating interface unit to an originating
4 gate controller, the originating gate controller being connected to a first network, the originating
5 interface unit being associated with the calling party and being coupled to a second network that
6 is different from said first network; and
7 receiving, at the originating interface unit, state information for the call from the
8 originating gate controller without the state information being maintained at the originating gate
9 controller,

10 said originating gate controller and said originating interface unit communicating with
11 one another via an access network.

1 38. The method of claim 37, wherein the received state information has been
2 encrypted by the originating gate controller.

1 39. The method of claim 37, further comprising:
2 receiving, at the originating interface unit, a hash value from the originating gate
3 controller,
4 the received hash value being based on a cryptographic hash function applied to the state
5 information received at the originating gate controller.

1 40. The method of claim 37, further comprising:
2 receiving, at the originating interface unit, a hash value from the originating gate
3 controller,
4 the received hash value being based on a cryptographic hash function applied to the state
5 information received at the originating gate controller,
6 the received state information having been encrypted by the originating gate controller.

1 41. A method for maintaining state information for a call between a calling party and
2 a called party, comprising:
3 sending a setup request for the call from an originating interface unit to an originating
4 gate controller, the originating gate controller being connected to a first network, the originating
5 interface unit being associated with the calling party and being coupled to a second network;
6 receiving, at the originating interface unit, state information for the call from the
7 originating gate controller without the state information being maintained at the originating gate
8 controller;
9
10 sending a call feature request for the call from the originating interface unit to the
11 originating gate controller, said call feature request including at least a portion of the state
12 information received at the originating interface unit; and

13 receiving modified state information at the originating interface unit from the originating
14 gate controller, the modified state information being based on the state information in the call
15 feature request.

1 42. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:
3 send a setup request for the call from an originating interface unit to an originating gate
4 controller, the originating gate controller being connected to a first network, the originating
5 interface unit being associated with the calling party and being coupled to a second network that
6 is different from said first network, and;
7 receive, at the originating interface unit, state information for the call from the originating
8 gate controller without the state information being maintained at the originating gate controller;
9 said originating gate controller and said originating interface unit communicating with
10 one another via an access network.

1 43. The computer-readable medium of claim 42, wherein the received state
2 information has been encrypted by the originating gate controller.

1 44. The computer-readable medium of claim 42, having stored thereon instructions
2 that when executed by the processor further cause the processor to::
3 receive, at the originating interface unit, a hash value from the originating gate controller,
4 the received hash value being based on a cryptographic hash function applied to the state
5 information received at the originating gate controller.

1 45. The computer-readable medium of claim 42, having stored thereon instructions
2 that when executed by the processor further cause the processor to::
3 receive, at the originating interface unit, a hash value from the originating gate controller,
4 the received hash value being based on a cryptographic hash function applied to the state
5 information received at the originating gate controller,
6 the received state information having been encrypted by the originating gate controller.

1 46. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:

3 send a setup request for the call from an originating interface unit to an originating gate
4 controller, the originating gate controller being connected to a first network, the originating
5 interface unit being associated with the calling party and being coupled to a second network;

6 receive, at the originating interface unit, state information for the call from the originating
7 gate controller without the state information being maintained at the originating gate controller;

8
9 send a call feature request for the call from the originating interface unit to the originating
10 gate controller, said call feature request including at least a portion of the state information
11 received at the originating interface unit; and

12 receive modified state information at the originating interface unit from the originating
13 gate controller, the modified state information being based on the state information in the call
14 feature request.

1 47. A method for maintaining state information for a call between a calling party and
2 a called party, comprising:

3 receiving an authorized setup request at a terminating interface unit from a terminating
4 gate controller;

5 sending a setup acknowledgment message based on the authorized setup request from the
6 terminating interface unit to the terminating gate controller; and

7 receiving, at the terminating interface unit, state information for the call from the
8 terminating gate controller without the state information being maintained at the terminating gate
9 controller;

10 said terminating interface unit and said terminating gate controller communicating over
11 an access network.

1 48. The method of claim 47, wherein the received state information has been
2 encrypted by the terminating gate controller.

1 49. The method of claim 47, further comprising:

2 receiving, at the terminating interface unit, a hash value from the terminating gate
3 controller,
4 the received hash value being based on a cryptographic hash function being applied on
5 the state information received at the terminating gate controller.

1 50. The method of claim 47, further comprising:
2 receiving, at the terminating interface unit, a hash value from the terminating gate
3 controller,
4 the received hash value being based on a cryptographic value being applied on the state
5 information received at the terminating gate controller,
6 the received state information has been encrypted by the terminating gate controller.

1 51. The method of claim 50 wherein

1 52. A computer-readable medium having stored thereon instructions that, when
2 executed by a processor, cause the processor to:
3 receive an authorized setup request at a terminating interface unit from a terminating gate
4 controller;
5 send a setup acknowledgment message based on the authorized setup request from the
6 terminating interface unit to the terminating gate controller;
7 receive, at the terminating interface unit, state information for the call from the
8 terminating gate controller without the state information being maintained at the terminating gate
9 controller;
10 said terminating interface unit and said terminating gate controller communicating over
11 an access network.

1 53. The computer-readable medium of claim 52, wherein the received state
2 information has been encrypted by the terminating gate controller.

1 54. The computer-readable medium of claim 52, having stored thereon instructions
2 that when executed by the processor further cause the processor to::

3 receive, at the terminating interface unit, a hash value from the terminating gate
4 controller,
5 the received hash value being based on a cryptographic hash function being applied on
6 the state information received at the terminating gate controller.

1 55. The computer-readable medium of claim 52, having stored thereon instructions
2 that when executed by the processor further cause the processor to::

3 receive, at the terminating interface unit, a hash value from the terminating gate
4 controller,
5 the received hash value being based on a cryptographic hash function being applied on
6 the state information received at the terminating gate controller,
7 the received state information has been encrypted by the terminating gate controller.

1 56. The computer-readable medium of claim 52 wherein

1 57. A method for establishing state information for a call between a calling party and
2 a called party, comprising:

3 receiving, at an originating gate controller, a setup request for a call, the originating gate
4 controller being connected to a first network, the calling party being associated with an
5 originating interface unit coupled to a second network that is different from said first network;

6 authorizing the setup request for the call;

7 sending the authorized setup request to the called party;

8 formatting state information for the call based on a setup acknowledgment message
9 received from the called party; and

10 sending the state information for the call from the originating gate controller to the
11 originating interface unit;

12 said originating gate controller and said originating interface unit communicating with
13 one another via an access network.

1 58. The method of claim 57, wherein the state information for the call is sent from the
2 originating gate controller to the originating interface unit without the state information for the
3 call being accessed subsequently from the originating gate controller.

1 59. The method of claim 58 wherein

1 60. The method of claim 59 wherein

1 61. A method for use in an originating gate controller in a packet-carrying network,
2 the method comprising
3 receiving a setup request for a call from an originating end-terminal, said setup request
4 being received over an access network that interconnects said end-terminal to said packet-
5 carrying network; and
6 sending state information for the call to the originating end-terminal over said access
7 network without maintaining the state information at the originating gate controller.

1 62. The invention of claim 61 wherein said state information for the call includes
2 information identifying a destination for the call.

1 63. The invention of claim 61 wherein said state information for the call includes
2 billing information for the call.

1 64. The method of claim 61 wherein said state information for the call is sent to the
2 originating interface unit in encrypted form.

1 65. A method for use by a gate controller in a packet-carrying network, the method
2 comprising
3 receiving, from an originating end-terminal, call request messages requesting setup of
4 calls through the network, each of said call request messages including information identifying a
5 destination for a respective one of the calls, and

6 sending at least one message to said originating end-terminal subsequent to receipt of
7 each said call request message, ones of the sent messages including network addresses
8 corresponding to the identified destinations and others of the sent messages including network
9 addresses corresponding to call-forwarded destinations associated with the identified
10 destinations,

11 said gate controller not maintaining information about said network addresses after
12 sending said messages to said originating end-terminal, and the network addresses corresponding
13 to at least the call-forwarded destinations being encrypted.

14 each said message being communicated over an access network that interconnects said
15 originating end-terminal with said packet-carrying network.

1 66. The invention of claim 65 wherein the network addresses corresponding to the
2 identified destinations are encrypted.

1 67. The invention of claim 65 wherein said others of said sent messages are call
2 transfer messages.

1 68. A method for use by a gate controller in a packet-carrying network of a type in
2 which originating end-terminals send to said gate controller call setup requests that include
3 information identifying requested destinations for the respective calls; said packet-carrying
4 network further being of a type in which, subsequent to receipt of each call setup request from an
5 individual one of the originating end-terminals, said gate controller sends to that originating end-
6 terminal at least one message that includes a network address; and said packet-carrying network
7 further being of a type in which said originating end-terminals provide, for transport over said
8 network, packets that include network addresses included in said messages, the method
9 comprising

10 including in individual ones of the messages sent by said gate controller network
11 addresses corresponding to said requested destinations, and

12 including in other ones of the messages sent by said gate controller network addresses
13 corresponding to call-forwarded destinations that had been specified for ones of said requested
14 destinations,

15 said gate controller not maintaining information about said network addresses after
16 sending said messages to said originating end-terminals, and the network addresses
17 corresponding to at least the call-forwarded destinations being encrypted,
18 each said message being communicated over an access network that interconnects said
19 originating end-terminal with said packet-carrying network.

1 69. The invention of claim 68 wherein said other ones of said messages are call
2 transfer messages, whereby a call that was set up to a requested destination is caused to be
3 transferred to a call-forwarded destination.

1 70. The invention of claim 68 wherein the network addresses corresponding to the
2 identified destinations are encrypted.

1 71. The invention of claim 70 wherein said other ones of said messages are call
2 transfer messages.

1 72. A method for use in a terminating gate controller in a packet-carrying network,
2 the method comprising
3 receiving, from within said packet-carrying network, a setup request for a call, and
4 sending state information for the call from the terminating gate controller to a terminating
5 end-terminal over an access network that interconnects said terminating end-terminal to said
6 packet-carrying network without maintaining the state information at the terminating gate
7 controller.

1 73. The invention of claim 72 wherein said state information for the call includes
2 information identifying a destination for the call.

1 74. The invention of claim 72 wherein said state information for the call includes
2 billing information for the call.

- 1 75. The method of claim 72 wherein said state information for the call is sent to the
- 2 originating interface unit in encrypted form.